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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/771,656	02/04/2004	Vera Buchholz	PO8046/LeA 36,416	3531
34947	7590	06/01/2006		
LANXESS CORPORATION 111 RIDC PARK WEST DRIVE PITTSBURGH, PA 15275-1112			EXAMINER MULLIS, JEFFREY C	
			ART UNIT	PAPER NUMBER

1711

DATE MAILED: 06/01/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 10/771,656	Applicant(s) BUCHHOLZ ET AL.	
	Examiner Jeffrey C. Mullis	Art Unit 1711	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>8-16-04</u> . | 6) <input type="checkbox"/> Other: _____ |

The various parameters recited starting at paragraph 59 of applicants published specification are undefined. Correction is required.

Claims 1-5 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. If applicants "weighted subtraction" is defined by the subject matter of paragraphs 59 et seq of their published application then claim 2 is unenabled in that the lack of definition of the various parameters renders this discussion unclear.

Claims 1-5 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

It is not clear on what materials the weight percent of "copolymer (sic)" is based on and this percentage is therefore unclear. Furthermore as none of the examples of the instant specification actually use 1-50 weight percent of "copolymer" with the vinyl aromatic compound those skilled in the art would question if "copolymer" is meant.

Claim 3 is unclear in that this claim does not state which materials the 12 percent by weight is based on.

Applicants specification does not define what is meant by "weighted subtraction" and this term is therefore unclear.

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The term "desired" is subjective and therefore unclear.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Wolf et al (US 2003/0119199).

Wolf discloses a process in which Raman is used to monitor a graft polymerization and in which reaction partners are added based on said monitoring (abstract). Note the example at paragraph 115-120 for production of ABS and use of weighted subtraction.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Wolf (WO 03038415), cited on applicants ISR.

It is note that the above WO patent corresponds to Wolf '199 above as set out in applicants ISR and the disclosure is therefore the same.

Claims 1-5 are rejected under 35 U.S.C. 102(e) as being anticipated by Wenz (US 2003/0130433).

Wenz disclose a process in which ABS is produced while monitoring using Raman (abstract) and maintaining desired monomer rubber ratios (paragraph 65). With re to the term "weighted subtraction" in the claims as peak intensity and area vary depending on the material being observed by Raman any concentration determined would have to be determined based on the observed materials response to radiation as would be understood by those skilled in the art and the limitation of claim 2 would appear to have little meaning as a limitation.

Claims 1-5 are rejected under 35 U.S.C. 102(a) as being anticipated by Wenz (WO 03038414), cited on applicants ISR.

As set out on applicants ISR, Wenz WO '414 and US'433 are members of the same patent family and are therefore identical.

Applicant cannot rely upon the foreign priority papers to overcome these rejections because a translation of said papers has not been made of record in accordance with 37 CFR 1.55. See MPEP § 201.15.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140

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F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-12 of copending Application No. 10/281597. Although the conflicting claims are not identical, they are not patentably distinct from each other because the copending process of graft polymerization encompasses production of ABS as set out in the specification of the copending application.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-5 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim 1-15 of copending Application No. 10/281345. Although the conflicting claims are not identical, they are not patentably distinct from each other because the process of synthesizing the graft copolymer as recited by the copending claims is disclosed by the copending specification to include maintaining monomer and rubber ratios.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Monsanto (GB 1200 414), cited by applicants in view of Schrof et al. (US 6,278,518) and/or Long et al. (US2002/0156205).

Monsanto disclose process for producing ABS (Example 1) in which the rate of monomer addition is controlled (page 5, lines 48-55).

Monsanto does not disclose the use of Raman for monitoring their reaction

Long discloses that Raman can be used to monitor polymerization of unsaturated monomers to control the reactor constituents and that Raman has the advantage of in situ reliable real time analysis. Note paragraphs 6-9 in this re.

Schrof discloses that the advantages of monitoring polymerizations using Raman include high sensitivity and short reaction times and insensitivity to water. Note column 4, lines 46-60.

It would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to use Raman to monitor the process of Monsanto as taught by the secondary references motivated by the need of the primary references for a process of monitoring their polymerization and by the teachings of the secondary references that Raman will meet this need in a particularly efficient manner absent any showing of surprising or unexpected results.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kishida et al. (US 4,173,600) applicants in view of Schrof et al. (US 6,278,518) and/or Long et al. (US2002/0156205).

Kishida discloses a process for producing ABS (column 2, lines 14-25). Note that the graft substrate has a Tg of less than zero at column 5, lines 24-36). The concentration of reactants are monitored and adjusted at column 7, lines 51-59.

Kishida does not disclose the use of Raman for monitoring their reaction.

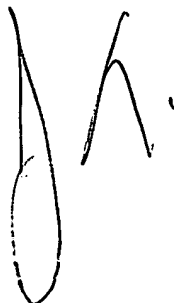
It would have been obvious to a practitioner having an ordinary skill in the art at the time of the invention to use Raman to monitor the process of Kishida as taught by the secondary references motivated by the need of the primary references for a process of monitoring their polymerization and by the teachings of the secondary references that Raman will meet this need in a particularly efficient manner absent any showing of surprising or unexpected results.

Any inquiry concerning this communication should be directed to Jeffrey C. Mullis at telephone number 571 272 1075.

Jeffrey C. Mullis
J Mullis
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JCM

5-18-06



Jeffrey Mullis
Primary Examiner
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